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Student Organizations

Naval Postgraduate School Hobby Computer Club

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1984

# Naval Postgraduate School Hobby Computer Club / Newsletter No. 8504

Monterey, California, Naval Postgraduate School

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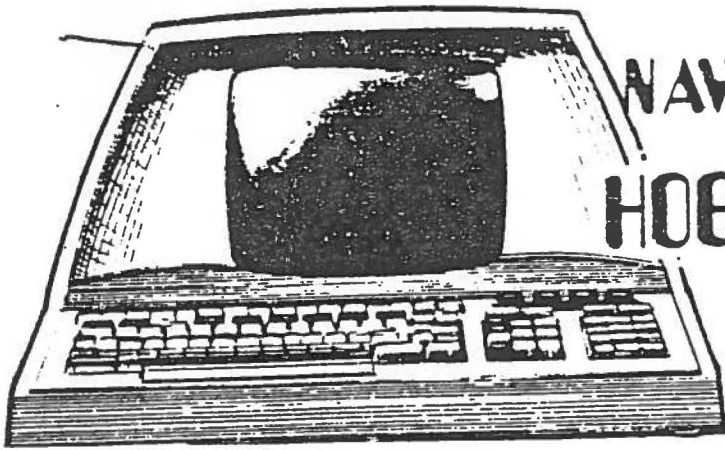
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# NAVAL POSTGRADUATE SCHOOL HOBBY COMPUTER CLUB

Monterey, Ca. 93940

No. 8404

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CALENDAR  
\* \* \* \* \*

BOARD MEETING	21 MARCH 1984
GENERAL MEETING	5 APRIL 1984
BOARD MEETING	25 APRIL 1984
GENERAL MEETING	3 MAY 1984

*From the Editor*

A few quick items:

1. At the last meeting someone (mistakenly we hope) walked off with two boxes of color diskettes. Will the guilty party please remit the funds to the Treasurer and we will all be happier.
2. Someone else has borrowed all the back issues of the club newsletter that had resided in the Math lab in Ingersoll Hall, again will the guilty party(ies) please return them for the benefit of your fellow club members ?
3. Contest reminder: deadline for new headliner remains 24 April; Article of the Quarter will be voted on at the April meeting.
4. SIG Chairpersons: I need a current list of Chairpersons and members. Also will need max articles on your particular machines (see *Coming Attractions* this issue for some details). More at the next meeting.

-- Will Dossel  
SMC 1755



### *From the Treasurer*

===== > WELCOME TO NEW MEMBERS < =====

The Hobby Computer Club offers a warm welcome to the following new members who have joined us during the last month:

<u>Name</u>	<u>CPU</u>
Steven Ambrose	IBM PC
Kenneth Coomes	None
Chip Cooper	Epson QX-10
Jim Decker	Kaypro 2
Willis Greer, Jr.	Apple IIe
Ham Byung Woon	None
Stephen Handrop	Apple II+
Donald Hinsman	Apple II+
James Hunter	H/Z-100
Melvin Kline	IBM PC-XT
Joe Lemire	H/Z-100
Joe Montgomery	H-89
John Owen	Franklin Ace
Dennis Popiela	H/Z-100
Vernon Reed	IBM PC
Dwight Scott	None
Steven Sigler	Apple IIe
Chuck Sutherland	H/Z-100
Jim Tackett	Apple IIe
Douglas Wenger	H/Z-100
Spence Witten	Kaypro 10

Total new members: 21

### *The User's Corner*

#### *Apple II, II+, IIe, MacIntosh, Lisa*

Okay folks, your erstwhile editor stuck his foot in his mouth at the last student council meeting by agreeing to find out more on the Apple offer for college students and the MacIntosh. Help from anyone in the Apple SIG would be of enormous benefit as I am not familiar with the Apple way of doing things or chain-of-command, ok ?

#### *EPSON QX-10/HX-20*

Chip Cooper has been interfacing with the nationwide net of Electronic Bulletin Boards (BBS) and passes along the following info:

1. New CP/M release: CP/M Release B; this is a new CP/M version that includes such items as a built in RAM disk program

# THE HISTORY OF THE

REIGN OF KING CHARLES THE FIRST

IN WHICH ARE CONTAINED THE PARTICULARS OF HIS LIFE AND DEATH, AND THE HISTORY OF THE PARLIAMENTS, AND OF THE AFFAIRS OF THE COMMONS, FROM THE BEGINNING OF HIS REIGN, TO THE END OF THE YEAR 1649.

1649

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giving you a 112K "M" drive in main memory. Some of the functions this supports are allowing you to re-program the HASCI special function keys, graphics drivers for utility programs, etc. Cost should be in the neighborhood of ~\$50.

2. Modem 724: a new version of the public domain program Modem 7, this release is specially configured for the QX-10 and is available via downline loading from the Texas BBS (Ed: We'll try and get a copy locally and pass it along to the rest of the QXSIG folks).

Additionally, the Titan Board is out. It is an MS-DOS compatible board and appears to be being incorporated by Epson in the new machines coming off the line. I don't know yet when we can buy it locally (price in the March issue of *Byte* was quoted at \$ 795).

#### *Kaypro 2, 4, 10*

Dave Birdwell is departing and taking his place as the Kaypro SIG Chairman is Andy Bowman. Andy can be reached at 624-5208 daily after 2 PM (or 1400 if you prefer). This month he passes along a list of 100 of the better programs found in Public Domain. The list follows at the end of the newsletter.

#### *Zenith Z-100*

A new SIG has been formed for the Z-100 folks. Chairman is Dave Smith and the meetings will be the 3rd Thursday of the month. Given the expected size of the group we can expect a lot of material forthcoming from them (hint).

*Note: The appearance of personal endorsements of products, organizations or other services in this column is not meant to convey endorsement, either positively or negatively, of such products or services by the NPS Hobby Computer Club.*



## Articles

From the President,

Dear Will,

I just finished talking with one of the new club members and during our conversation I mentioned that the newsletter has lots of interesting articles and then I remembered that the deadline was today and that I said that I would have an article for you and here it is:

### SELECTING A WORKSTATION FOR YOUR COMPUTER

#### ACT I . SCENE 1

In the Kitchen of their home in LA MESA, a military housing community, JOHN, a student at the Navy Postgraduate School, is taking a large object out of a box. ENTER MARY, his wife, STAGE RIGHT:

JOHN: LOOK HONEY! HERE IT IS! I MEAN HERE... IT... IS!!!

MARY: ARE YOU SURE IT'S WORTH IT? I MEAN, IT COST AN AWFUL LOT.

JOHN: (taking the thing out of the box) WELL, I CAN USE IT IN MY SCHOOL WORK... I'LL BE TAKING A COMPUTER COURSE NEXT QUARTER... AND IT'S A TAX WRITE-OFF... AND WE CAN USE IT TO FIGURE OUT OUR EXPENSES... AND I CAN EVEN WRITE A PROGRAM TO KEEP TRACK OF YOUR RECIPES!... SO OF COURSE IT'S WORTH IT (sets computer on table)

MARY: (doubtfully) WELL WHERE ARE YOU GOING TO PUT IT?

JOHN: I HADN'T THOUGHT OF THAT.... IT ISN'T VERY BIG... I COULD KEEP IT HERE ON THE TABLE (moves table away from wall, pushes machine to back corner of table, starts putting chair in front of machine.)

MARY: (adamantly) NO NO NO! YOU'RE NOT KEEPING THAT THING OUT HERE! THERE'S NO ROOM AND THIS IS **MY** KITCHEN. YOU FIND SOMEWHERE ELSE TO DO YOUR... PROGRAMMING !

JOHN: OKAY OKAY OKAY!! WHAT DO YOU THINK ABOUT BUYING ONE OF THOSE WORKSTATIONS.... YOU KNOW, A TABLE BUILT JUST FOR COMPUTERS... WE COULD PUT IT IN THE CORNER BY THE FRONT WINDOW....

MARY: AND HOW MUCH MORE IS THAT GOING TO COST?

JOHN: (shrugs shoulders) OH, NOT MUCH

MARY: (to herself) THAT'S WHAT HE SAID ABOUT THE COMPUTER!



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I guess this scene (or one very much like it) is played many times in the course of each year. Our hero, JOHN, does some shopping and finally selects a nice looking piece of furniture. A few months later:

ACT II . SCENE 1

It looks like a hurricane has been through John and Mary's living room. On a table by the front window, resting one on top of another, are various pieces of computer equipment, books, and papers. Cables link the computer, printer, disk drives, modem, and color monitor. A large extension cord leads across the floor to a wall socket. The effect is that of a pack-rat's nest. John is frantically searching through the papers...

JOHN: MARY.... HAVE YOU SEEN THE BLUE BINDER WITH MY THESIS DRAFT? I CAN'T FIND IT.

MARY: IT'S A WONDER YOU CAN FIND YOUR ON/OFF SWITCH WITH THE MESS YOU'VE GOT HERE. HONESTLY, JOHN, WHY DID YOU EVER BUY THAT SMALL TABLE? IF YOU KNEW YOU WERE GOING TO BUY ALL THIS.... STUFF... WHY DIDN'T YOU BUY A TABLE BIG ENOUGH. AND LOOK AT THIS CORD RUNNING ACROSS THE FLOOR! IF THE KIDS DON'T BREAK THEIR NECK ONE DAY FROM TRIPPING OVER IT, I'LL BE SURPRISED... THAT IS IF THE HOUSE DOESN'T BURN DOWN... AND

JOHN: (interrupting) ALLRIGHTALLRIGHTALLRIGHT... I GET YOUR POINT. I'LL GO GET A BETTER TABLE THIS WEEKEND, BUT HELP ME FIND MY THESIS DRAFT RIGHT NOW... WILL YOU, PLEASE?

MARY: (to herself) I WONDER HOW MUCH THE NEW TABLE IS GOING TO COST?

There are some obvious lessons here. With the wide variety of commercially available work stations you can purchase for your computer, which one is best for you? What height should the surface be? How much area should you look for. Should you be looking for a piece of furniture or a card table? I will try to shed a little light on the answers to these and other questions.

Let's discuss table height first, but before you can decide what height the table should be, you should look at your chair. What's the chair got to do with the table height, you ask? Everything! Your comfort and hence, your 'endurance' and accuracy depend quite a bit on the chair you sit on. If you don't have a good chair to start with, then your money is better spent on a chair first, then a table. You may consider buying a chair and table at the same time. Things to look at are:

Weight distributions: The seat should be designed so that the weight of the body is distributed throughout the buttock region surrounding the ischial tuberosities (the bone protuberances of the buttock area, commonly known as sitting bones.) The weight should be distributed evenly by the seat contour, angle, height, and seat back.

Seat height and angle: The seat should not place excessive pressure on the thighs. This means that the front of the seat will generally be



between 1 to 2" below the popliteal crease (crease at back of the knee joint.) The seat height will generally be between 14.0 and 15.5" and should combine with seat angle to produce a 85 to 90 degree angle at the knee when sitting with your feet flat on the floor (again, to avoid excessive pressure on the thighs.) The seat should be angled slightly backwards (about 3 degrees). If the seat is too low, or the angle too steep, a 'chain reaction' will begin at the knee and result in a concavity at the small of the back or lumbosacral section of the spine. (Try sitting on a set of stairs to see what I mean.) If the seat is too high, circulation to the lower leg will be lessened by pressure on the thigh. A good office chair will allow adjustment in both height and angle.

**Seat depth and back support:** The seat should be deep enough to distribute your weight and allow clearance for your calf while minimizing thigh pressure. The seat back should provide for correct curvature of the spine (slightly convex) to keep the spinal column in balance. This generally requires an angle of about 100 degrees between seat and back.

**Armrests** are desirable when lots of mobility of the trunk and shoulders isn't required. They will be 7 to 9" from the seat. You should not have to lower your shoulders nor raise them more than 1" to rest your arm.

So now that you have the right kind of chair, you can select your table height. Three factors are important here: forearm angle when typing, head angle when looking at your crt, and thigh clearance. When sitting upright with your fingertips resting on your keyboard, your forearm should make an angle between 0 and 15 degrees with respect to the horizontal. If you have a detachable keyboard, you may consider bringing it with you when shopping for a workstation.

In general, the most effective visual area is centered about 15 degrees below the horizon. This should be the center of your crt. The effective visual area without head movement is about  $\pm 15$  degrees vertically, and  $\pm 20$  degrees horizontally from the center. If you have a detachable monitor, you may consider a stand to raise it a few inches. If your keyboard and display are attached, your table height will be a compromise between screen and keyboard height, the more important factor being screen height. This is because another "chain reaction" is set up when you tilt your head down, resulting in concavity of the spine.

Although a lesser effect, thigh clearance should be a consideration, especially if you have a detachable keyboard. You will undoubtedly be shifting your position occasionally, and you may want to cross your legs.

Finally, table depth and width are important. You may have an "all-in-one" system now, but **plan for expansion**. A good rule of thumb involves a minimum depth of two feet and width of four (mine is two by six).



Once your chair and workstation dimensions are established, you can go shopping. Look at the ones that "fit" and then go for features:

- A Paper pass-through (slot) for your printer
- Cable runs or pass-throughs for neatness
- Shelves or drawers (go for shelves)
- A "lip" around the table deep enough to clamp on a drafting lamp
- Low-maintenance surface (mine is formica)
- A foot rest
- Nice-looking
- Low cost

ROB KING



### *Swap Column*

**FOR SALE:** Heath H89A Computer, green screen, 64K RAM, internal drive, both hard and soft sector controllers, ULTRA ROM installed, CP/M 2.2, HDOS, UCSD Pascal p System, Wordstar/Mailmerge /Calcstar, ADA, COBOL, FORTRAN, plus over 1000 pages of documentation and 15 games. \$1,200.00 or best offer.

**Also:** Hayes Smartmodem 300, like new. \$160.00 or best offer. **Contact:** Dave Smith; 373-4202 after 5 PM.

### *Coming Attractions*

**May:** Telecommunications -- general and talking with the NPS Mainframe

**June ,July, and August:** The User's Issue (Parts I, II and III)

- Why they chose their machine
- tidbits and obscure (but important) kernels of knowledge on the various systems

**June:** Apple and Apple work-alikes

**July:** IBM and IBM work-alikes

**August:** Kaypro, Epson, Zenith, and others (Homebrews in September)





## IN THE PUBLIC DOMAIN

Listed here are the names of the 100 best CP/M utility programs we have found in the Public Domain. For whatever it is worth, our choice is based on a detailed study of the more than 3400 PD programs on the 120 SS/DD 5.25" diskettes in the NPS Computer Club Diskette Library. These programs are so successful that they are likely to endure. They are at the heart of the mass computer culture that is only now coming into being.

All of these programs and others, together with necessary doc files, are available to members of the NPS Computer Club, on 8 SS/DD 5" Kaypro 2/4 format disks on a 2-for-1 basis -- two blank disks for one packed PD disk. By arrangement we can move to many other 5" formats. Disk swap will help improve the club collection. Contact: Andy Bowman, 624-5208 daily after 2.

It is our intention to continue our study of these programs and to make new recommendations and disk offerings monthly.

-ASM	.HLP	B6 DE	DETAILED MANUAL OF ASSEMBLY COMMAND [ASS.COM] USEAGE <sup>M</sup>
-C/LANG	.HLP	68 CC	DETAILED MANUAL OF C/LANGUAGE USEAGE -- NOT CBASIC
-CPM2	.HLP	7A 46	DETAILED MANUAL OF CPM/2.2 OPERATING SYSTEM
-HEXCODE	.HLP	7F 25	LIST OF HEX, DEC, AND ASCII CODE EQUIVALENTS
-MBASIC	.HLP	F7 C7	DETAILED MANUAL OF M/BASIC USEAGE
ALLOC	.COM	4D FD	FILE ALLOCATION ON DISK; OPTIONAL NAMED-FILE ALLOCATION
BANZAI	.ASM	44 6D	TO PROTECT YOUR COPYWRITED FILE FROM PIRATES [BUGGY?]
CAT	.COM		TO READ MAST.CAT DISK LIBRARY FILE; AFN OR UFN
CHAT15	.COM	8A A2	RBBS OPERATOR-CONTROL CONVERSATION PROGRAM
COLUMN-M	.BAS	AD B1	FINE MBASIC MULTI-COLUMN FORMATTER FOR LISTS; OPTIONS
COMPARE	.COM	A9 CC	COMPARES TWO FILES LINE BY LINE DISPLAYING DISCREPANCIES
CRCK4	.COM	B8 F5	CYCLIC REDUNDANCY ACCURACY CHECK OF UFN OR AFN FILES
D	.COM	2E 9B	BEST, YES BEST SORTED DIRECTORY WITH MINOR STATS
DD	.COM	8C B7	BEWARE! HIGHLY SPECIALISED CATALOGING DIRECTORY: SEE DOC
DIRCHK	.COM	B5 C4	CHK DIR FOR OVERWRITES; GROUP ALLOCATIONS IN DECIMAL NRS
DISPLAY	.COM	CF E0	SCREEN DISPLAY WITH PAGE FORWARD/BACKWARD OPTIONS
DU	.COM	6B 38	CADILLAC DISK EDIT UTILITY BY W.C.
TELL	.COM	BB 7F	SUMMARY DESCRIPTION OF COMPUTER AND DISK SETUPS
DUMP22	.COM	E5 B3	EASY DISK FILE EDITOR AT HEXCODE LEVEL; BEST FOR NOVICES
EDITM	.COM	BE 10	GOOD WORD PROCESSING PROGRAM; PRICE IS RIGHT
EM2	.COM	42 55	INTERACTIVE INTRODUCTION TO ASSEMBLY LANGUAGE PROGRAMMING
ENTAB	.COM	85 F4	FILE COMPRESSION BY SUBSTITUTING TABS FOR MULTISPACES
EPROM	.COM	74 04	TO PROGRAM EPROM USING CPM DDT PLUS APPROPRIATE HARDWARE
EPSET2	.COM	DA FD	MENU SELECTION OF EPSON PRINTING OPTIONS
ERAA	.COM	8C 29	TO ERASE AFN WITH ECHO CONFIRMATION EACH FILE
FCOPY	.COM	67 F7	COPY/VERIFY UFN FILE; DEFAULT A TO B DRIVE; ALSO B TO A
FDIR16	.COM	88 1D	SORTED DIRECTORY W/FILE ATTRIBUTES ON 16 LINE PAGES
FDIR22	.COM	7E 0D	SORTED DIRECTORY W/FILE ATTRIBUTES ON 22 LINE PAGES
FILEFIND	.COM	61 E3	LOOKS ALL DISK DRIVES/USER AREAS TO FIND UFN FILE
FILEX	.COM	46 A3	FILE DIRECTORY W/MANY STATS, INCLUDING DISK LOCATIONS
FILTER11	.COM	E9 F7	TO STRIP ALL BUT ESSENTIAL CONTROL-COMMANDS FROM FILE
FIND-20	.COM	A4 94	SEARCHES FOR CHARACTER OR NUMBER STRINGS; AFN OPTION
FINDBAD	.COM	03 43	LOOKS FOR BAD SPOTS ON DISK; IF ANY FOUND, LOCKS OUT
FMAP	.COM	7B D4	ORIGINAL OF FILE DIRECTORIES WITH ALL STATS, LOCATIONS
GENHEX	.COM	92 07	DISPLAYS FILE IN PURE HEXCODE -- KINDA BEAUTIFUL
INDEX	.COM	43 F2	MAJOR DIRECTORY/INDEXING PROGRAM WITH MANY OPTIONS
INUSE	.COM	69 BA	LOCKS COMPUTER THAT IS IN USE; PASSWORD UNLOCKS
LCAT	.COM	41 AA	SEE LU.COM
LDIR	.COM	00 77	DIRECTORY OF FILES IN LU-FILE -- LIBRARY UTILITY, Q.V.
LIBRARY	.YES	62 F2	LONG DISCUSSION OF PROBLEMS INVOLVED IN DISK LIBRARIES
LINES	.COM	2F 59	COUNTS NUMBER OF BYTES AND NUMBER OF LINES IN FILE
LISTT	.COM	DC 72	FIRST RATE PRINT UTILITY WITH REALLY USEFUL OPTIONS
LOAN	.COM	21 A1	EVERY CONSUMER SHOULD HAVE THIS PROGRAM



LOOKUP	.COM	51 D3	PRIMA FILE STRING-SEARCH UTILITY; EASY USE AS PHONE BOOK
LRUN	.COM	19 1B	TO RUN A COM.FILE THAT IS INSIDE A LU-FILE
LU	.COM	2A 7A	MULTIPLE FILES ARE ORDERED WITHIN SINGLE LIBRARY FILE
MAKE	.COM	B1 55	TO REASSIGN FILE TO ANOTHER USER AREA
MENU	.COM	82 AB	MENU HANDLING OF ALL .COM FILES ON DISK
MENU/B	.COM	2F 06	MENU HANDLING OF ALL M.BAS FILES ON DISK
MENU/C	.COM	3A 72	MENU HANDLING OF ALL C.BAS FILES ON DISK
MLIST	.COM	63 AA	MULTIFILE DISPLAY OR PRINT, AFN OPTION, NO COM FILES
MODEM7	.COM	9C C6	CADILLAC MODEM PROGRAM BY W.C. ... OF COURSE
MODEMPRO.HLP		15 CB	W.C.DISCUSSES HIS CHOICES OF MODEM PROTOCOLS
NEWCAT	.COM		BEST DISK LIBRARY CATALOG BUILDER; CF CAT.COM
NECSET	.COM	8D 5A	MENU SELECTION OF NEC PRINTING OPTIONS
NOTATE	.COM	2A 40	TO ADD REMARKS LINE BY LINE TO SOURCE FILES
OREMOTE	.COM	4E 95	TO LINK TWO COMPUTERS AS MASTER AND SLAVE
PASSWORD.COM		5A 48	TO REQUIRE USER-SET PASSWORD TO UNLOCK COM-FILE
PBH	.COM	AB 87	PRINT BANNER HEADER WITH OR WITHOUT TEXT
PHRASORT.COM		A5 93	BEST SORT FOR PHRASES; SINGLE WORDS OK; <CR> DELIMITS
PIPV	.COM	ED 78	PIP PROGRAM WITH AUTOMATIC VERIFICATION
POW2	.COM	8E 4E	FIRST RATE TEXT FORMATTING PROGRAM WITH MOST OPTIONS
POW2	.MAN	59 20	EXCELLENT MANUAL ON HOW TO USE POW2
READ	.COM	34 0E	LIKE CPM TYPE.COM, BUT IN 22 LINE PAGES: <CR> TO PAGE
RENAME	.COM	92 BA	ALLOWS MASS RENAMING OF AFN FILES
RESOURCE.COM		9A 08	DISSASSEMBLER OF COM-FILES BY W.C.
RESOURCE.DOC		57 30	LONG DISCUSSION BY W.C. OF HOW TO DISSASSEMBLE COMFILE
RPIP	.COM	79 BC	REPEATABLE PIP.COM WITH AUTOMATIC R/W RESET
RPN	.COM	11 46	REVERSE POLISH NOTATION - MATH
RUBIKCUB.HLP		30 ED	HOW TO SUCCEED AT RUBIK CUBES
S/SUB/DO.COM		22 D1	ONE OF THREE SUPERSUB MODULES, Q.V.
SAP	.COM	85 B1	LIFTS, SORTS, REWRITES DISK DIRECTORIES IN PLACE
SCRAMBLE.COM		36 C9	TO ENCRYPT/DECRYPT TEXT FILES; EASY; PRIMA; BY W.C.
SD-44	.COM	D6 0C	PRIMA DIRECTORY PROGRAM W/MANY OPTIONS, CAN SAVE TO FILE
SGEN	.COM	F1 47	TO INCREASE NUMBER OF SYSTEM TRACKS IN CPM2.2
SGEN	.DOC	60 1E	LONG DISCUSSION ON CP/M SYSTEM TRACK ORGANIZATION
SPOOL	.COM	99 F4	MONITORS/SAVES TO FILE ALL CONSOLE OR PRINTING ACTIVITY
SQ/FLS	.COM	0C 99	MODULE OF THE SQUEEZE PACKAGE
SQUEEZ16.COM		F7 95	TO COMPRESS TEXT AND COM FILES TO STORE OR TRANSMIT
STRIP	.COM	C0 38	REMOVES ALL REMARKS FROM ASSEMBLY LANG SOURCE FILE
SUBGEN12.COM		C6 C3	UTILITY FOR MASS FILE MANIPULATION OR EDITING
SUPRSUB2.COM		DD EB	SUPERCONVENIENT SUBMIT-TYPE UTILITY PACKAGE
SWEEP	.COM	75 9F	MERCEDES FILE MANIPULATION AND MOVING UTILITY, MENU
SWEEP	.DOC	F1 A8	LONG PRIMA DOCUMENTATION OF SWEEP.COM OPTIONS
SYNONYM3.COM		9B D2	EXCELLENT/USEFUL FIRST STEP IN DIRECTION OF SMARTKEY
TAG2	.COM	2D B2	SETS FILES WITH "NO COPY" FLAG; CF. MODEM7 DERIVATIVES
TAIL	.COM	9B CA	MULTIPLE DISPLAY OF FIRST N OR LAST N LINES OF TEXTFILES
TED	.COM	26 59	FIRST RATE WORD PROCESSING SYSTEM; PRICE IS RIGHT
TRANSLAT.COM		99 E0	TRANSLATES ASCII 8080 ASM CODE TO Z-80 ZILOG MNEMONICS
TRIAN	.COM	3B 32	PRINTS PASCAL'S TRIANGLE--DELIGHT FOR BOTH EYE AND MIND
TYPE17	.COM	F4 B8	LIKE CPM TYPE.COM, BUT FOR SQUEEZED FILES
UN	.COM	3E 89	TO UNPROTECT YOUROWN (OF COURSE) PROTECTED MBASIC FILES
UNERASE	.COM	F1 81	PRIMA RECOVERY PROGRAM FOR CPM ERASED FILES; READ DOC!
UNSPOL30.COM		A6 3C	LETS COMPUTER PRINT STUFF WHILE YOU WORK ON OTHER STUFF
UNSQUEEZ.COM		2E 55	TO UNCOMPRESS SQUEEZED FILES; CF. TYPE17.COM
USERNUM	.COM	59 67	ADDS USER AREA NUMBER TO CPM A> PROMPT
WAIT	.COM	0B FC	REMINDS WITH PERIODIC BEEP THAT COMPUTER ON, READY TO GO
WDIR	.COM	70 67	SORTED DIRECTORY WITH A DIFFERENCE, TRY IT
XAMNIT	.COM	47 C2	A GOOD MENU-DRIVEN DISK EDITOR WITH MANY OPTIONS
XCOP	.COM	0B F3	SINGLE DRIVE FILE OR DISK COPY PROGRAM
XDIR	.COM	A2 31	SORTED DIRECTORY IN A 22 LINE LIST FORMAT
ZPTX	.COM	8A 13	QUICK L/R JUSTIFICATION PROGRAM WITH TEXT/WIDTH OPTION



### WORDSTAR 3.3 and the EPSON RX-80

Here is an example of some of their features:

<u>Control characters:</u>	<u>Features:</u>
^Y (on/off)	<i>Italics</i>
^B (on/off)	<b>Boldface</b>
^D (on/off)	<b>Double strike</b>
^S (on/off)	<u>Underscore</u>
^X (on/off)	<del>Strikeout</del>
^V (on), ^V^Q (off)	Sub <sub>script</sub> H <sub>2</sub> SO <sub>4</sub>
^T (on), ^T^Q (off)	Super <sup>script</sup> X <sup>2</sup> + Y <sup>2</sup>
^H	Overprint (à) (ô)
^N	Pica pitch
^A (on), ^N (off)	Elite pitch
^E (on), ^Q (off)	Condensed pitch
^W (on), ^Q (off)	<b>Double width Pica</b>
^W^A (on), ^Q^N (off)	<b>Double width Elite</b>
^W^E (on), ^Q (off)	<b>Double width Condensed</b>
^W^Y (on), ^Q^Y (off)	<i>Wide Italics</i>
^RE (on), ^RF (off)	<b>Emphasized print mode</b>
^RG (on), ^RH (off)	<b>Double strike</b>
^R-1 (on), ^R-0 (off)	<u>Underscore</u>

Note that ^R can be used with a non-control character as in the **emphasized** print mode above. Set the user defined function, ^R, to 01 1B (hex). Thus ^R can be used with a variety of symbols, producing many varied functions without the necessity of reconfiguring WS.COM.

I configured Wordstar to backspace for two reasons, even though it slows down the normal bold, double strike, underline, and strikeout modes. First I can get normal speed by using ^RG ^RH for double stike on/off and ^R-1 ^R-0 for underscore on/off. Second I have less trouble with double wide bold printing. It always seems to print two or three different places on the line when Wordstar is configured to non-backspacing.

For superscript/subscripts set carriage roll up/down to 03 1B 53 30 and 03 1B 53 31 respectively for turn on only. To turn them off use ^T^Q and ^V^Q respectively. Neither ^Q nor ^T or ^V along will turn them off. ^Q will not only helps to turn off superscript and subscripts but, it also turns off condensed print mode and enlarged print mode, if you set the user defined function, ^Q to 12 14 1B 54.

For enlarged and condensed print modes set user defined functions ^W and ^E to 0E and 0F respectively.

**Jim Sindberg**  
12 April 1984

